

SERIAL NO: 09/719,017

PH-98/032 (5500\*54)

- (2) seeding and culturing the *E. coli* bacteria strain W host cell in a suitable culture medium; such that the industrial process produces the heterologous protein.
22. The process of claim 21, wherein the *E. coli* bacteria strain W host cell is from the strain designated ATCC Number 9637.
23. The process of claim 21, wherein the *E. coli* bacteria strain W host cell is a derivative of the strain designated ATCC Number 9637 and is obtained by clonal selection or genetic manipulation.
24. The process of claim 21, wherein the suitable culture medium is a culture medium suitable for production of a high density of biomass and a high content of heterologous proteins produced.
25. The process of claim 21, wherein the suitable culture medium has a volume of greater than two liters.
26. The process of claim 21, wherein the suitable culture medium comprises L-tryptophan.
27. The process of claim 26, wherein L-tryptophan is present in the suitable culture medium at between 0.05 and 0.5 g/l.
28. The process of claim 27, wherein L-tryptophan is present in the suitable culture medium at between 0.1 and 0.3 g/l.
29. The process of claim 21, wherein the suitable culture medium comprises sucrose as the main carbon source.
30. The process of claim 29, wherein the suitable culture medium comprises substantially only sucrose as a carbon source.

SERIAL NO: 09/719,017

PH-98/032 (5500\*54)

31. The process of claim 29, wherein the amount of sucrose in the suitable culture medium is between 0.1 and 300 g/l at the start of culturing.
32. The process of claim 31, wherein the amount of sucrose in the suitable culture medium is between 0.5 and 200 g/l at the start of culturing.
33. The process of claim 21, wherein the suitable culture medium comprises a supplementary organic nitrogen source.
34. The process of claim 33, wherein the supplementary organic nitrogen source consists of protein extracts.
35. The process of claim 34, wherein the protein extracts comprise, in g amino acids per 100 g of product, alanine between 10 and 4, aspartic acid between 11 and 4, glycine between 22 and 2.5, and lysine between 7 and 4.
36. The process of claim 33, wherein the supplementary organic nitrogen source consists essentially of meat or potato peptones or proteins.
37. The process of claim 33, wherein the supplementary organic nitrogen source consists essentially of derivatives of potato proteins.
38. The process of claim 21, wherein the suitable system for expressing heterologous proteins comprises a  $P_{trp}$  promoter.
39. The process of claim 38, wherein the  $P_{trp}$  promoter comprises the nucleic acid sequence of SEQ ID NO: 1.
40. The process of claim 21, wherein the heterologous protein is an enzyme.
41. The process of claim 40, wherein the enzyme is useful for the biocatalysis of chemical